National Physiological Science Services Transformation Strategy

This work has been supported by:

NHS England

CSVS
THE COLLEGE AND SOCIETY FOR CLINICAL VASCULAR SCIENCE
Great Britain and Ireland

BRITISH SOCIETY FOR HEART FAILURE

AHCS®
Academy for Healthcare Science

BSS

Executive Summary

Physiological Science tests are the tests that help a parent understand their child's hearing loss, that guide treatment for someone living with heart failure, that explain the cause of breathlessness or disturbed sleep. For patients and families, these services are often the moment when uncertainty becomes clarity, and when care can begin.

Yet too often, people have had to wait too long for these vital tests. Delays bring anxiety, worsen outcomes, and deepen health inequalities. We must do better.

This strategy is about putting patients first. It sets out how we will reform Physiological Science so that services are faster, fairer, and more focused on people's needs. Aligned with the ambitions of the NHS 10-Year Plan, it builds on three radical shifts: moving care closer to communities, harnessing digital innovation, and rebalancing our focus from sickness to prevention. Above all, it recognises that every test is not just a measurement, but a moment that matters deeply in someone's journey of care.

Crucially, this is not only about increasing capacity, but about embedding quality and safety, investing in a skilled workforce, and ensuring services are consistently delivered to the highest standards.

Physiologists and healthcare scientists bring extraordinary expertise, compassion, and innovation and it is time that their contribution is recognised as central to modern NHS care.

'Every day across England, Physiological Science services change lives'

Stella Vig
Consultant Vascular and General Surgeon
National Clinical Director for Elective Care
Deputy National Medical Director for Secondary Care and Quality, NHS England

A Framework for Transforming Physiological Sciences

Purpose: To improve population outcomes, making Physiological Science services across England fit for the future, ensuring people can access the right tests at the right time performed by the right person.

1

Enable better access: Access to physiological science services must be recognised as a key enabler of effective and efficient patient pathways. To meet evolving needs, new capabilities should be developed across a range of settings, including at neighbourhood level. Digital transformation should empower patients with greater choice and control over where and how they access diagnostic testing. Service planning must be underpinned by robust capacity and demand modelling to ensure responsiveness, sustainability and optimal resources.

2 Reduce avoidable demand

- Adoption of agreed referral and triage processes for each service aligned to NICE standards and, professional society guidelines.
- Seek opportunities to meet demand in different ways using technology, innovation and skill mix.

3 Improve productivity

- Investment in capital and estates to ensure tests can be performed without disruption or delay.
- Investment in digital systems in every service.
- Providers should improve coding, counting and monitoring at service level as a crucial step in delivering improvement in these services
- Application of NHS England Diagnostic 10 high impact improvements

4 Integrate services

- Develop Physiological Sciences services as a single system of care, working to the same criteria and standards.
- Digital integration to enable results, images and data to be shared seamlessly with any health care provider who requires access.
- Develop roles which can effectively administer a range of tests that meet an individuals needs.

5 Improve Quality

- Commissioner and provider organisations should ensure services are working to nationally accredited standards, including IQIPS.
- Physiologists should be supported to lead improvement and transformation within their service.
- Every Physiological Science service should be supported to implement a Quality Management System

6

Enablers: Physiological Science Networks implementing the PS network framework, digital and technology, improved service data, physiologist led improvement, growth in workforce capacity, training and education as well as investment in professional development.

Physiological Science: A Core Service Across All Patient Pathways

Despite delivering millions of tests each year, Physiological Science services often operate out of sight, yet they provide essential real-time insight that underpins diagnosis, treatment, and ongoing management across many major conditions.

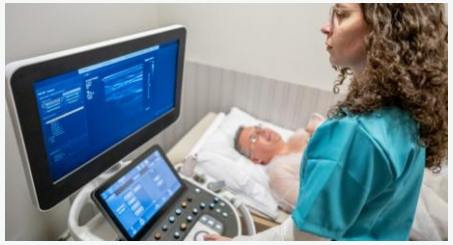
Physiological Science services measure how the body's major organs and systems function in real time, helping clinicians understand the processes that drive symptoms such as fatigue, breathlessness, dizziness, or palpitations, even when scans appear normal.
By revealing early, intermittent, or activity-dependent changes in how organs and systems perform, Physiological Science tests provide insights that static imaging cannot, particularly when problems only emerge during everyday activities, stress, exercise, or sleep.

They play a key role in the diagnosis, monitoring, treatment, and ongoing management of many major conditions, supporting timely clinical decisions and appropriate intervention.

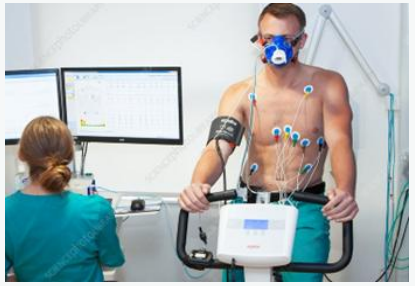
These services are typically delivered and led by healthcare scientists, working alongside other health professionals to provide highly specialised, patient-centred care.

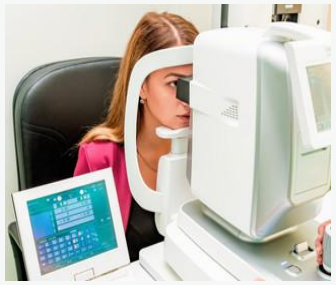
From a diagnostic perspective, Physiological Science services deliver a wide range of investigations that are essential to informing timely decisions around intervention, with the NHS providing **more than 20 million Physiological Science tests each year***.





Services are grouped into eight main disciplines:
Audiology, Cardiac Physiology, Gastrointestinal (GI), Neurophysiology, Ophthalmic and Vision Science, Respiratory and Sleep Physiology, Urodynamics and Vascular Physiology



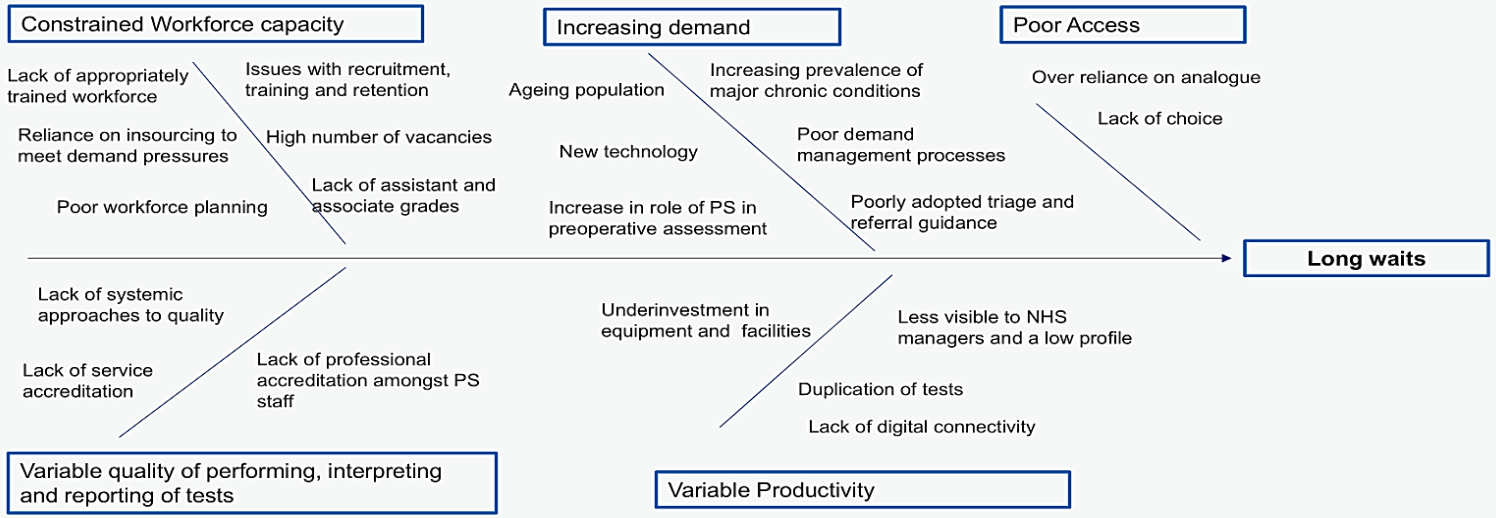


* *this is an under-estimation, as does not include some of the more basic physiological measurements used across healthcare such as blood pressure checks or oxygen saturation*

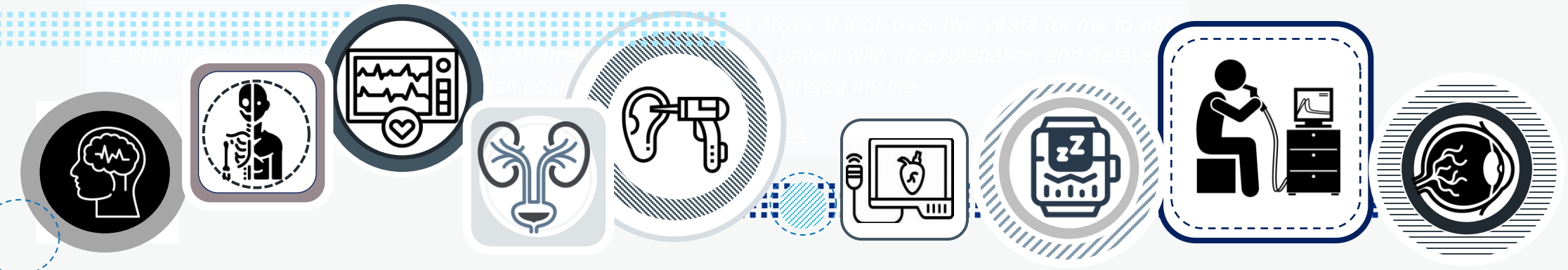
Patient access to Physiological Science tests & results

This is significantly more challenged than other diagnostic services and is influenced by a complex combination of factors

Challenges in Physiological Services



- Waiting times for 6 physiological science tests reported through DM01 have been consistently longer than the overall DM01 diagnostic average since the COVID pandemic
- 47% of all diagnostic 13-week waits are for a Physiological Science test
- 31% of all diagnostic 6-week waits are a Physiological Science test (DM01 March 2025) even though they make up just 13% of the diagnostic activity submitted into DM01



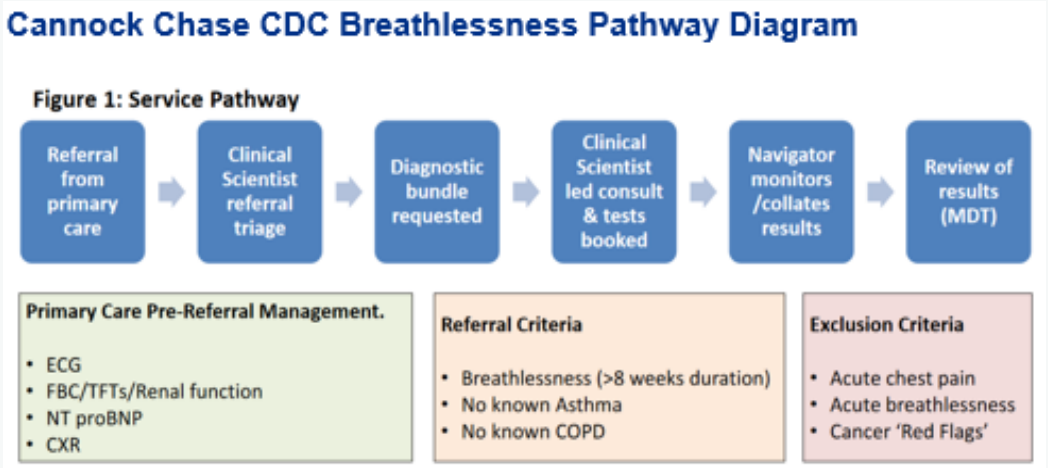
Transformation across Physiological Science will help deliver the ambitions in the 10 Year Plan

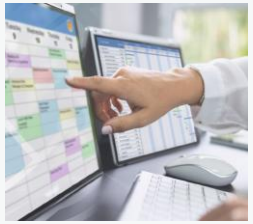
Hospital to Community | **Analogue to digital** | **Sickness to prevention**

We want to see a model of a model of Physiological Science services that enables high-quality, reliable testing across a broader more accessible range of locations

Patients should expect:

- ❑ To access quality physiological tests outside of hospital in their community and remotely in their own homes (including the use of wearable technology).
- ❑ To book appointments and see their results via the NHS App
- ❑ Services to be more integrated and digitalised where tests and data are shared across healthcare settings.
- ❑ Straight to test pathways (where clinically appropriate) with more physiologist led services.
- ❑ More services led by physiologists enabling better access to the right test without the need for consultant patient appointments prior to a test.





Physiological Science services led by Physiologists are well placed to deliver diagnostic services in community-based healthcare

When referred for diagnostic tests, people value timeliness, choice and clear communication.

One in five people (20.9%) reported diagnostic tests not being available when needed. Asthma & Lung UK (Delayed Diagnosis 2022)

In a survey by the Patients Association 82% said they wanted more discussion of testing options. 77% said they would be happy to test themselves at home

Community facilities such as CDC's can provide more convenient personalised care where several tests can take place at the same location

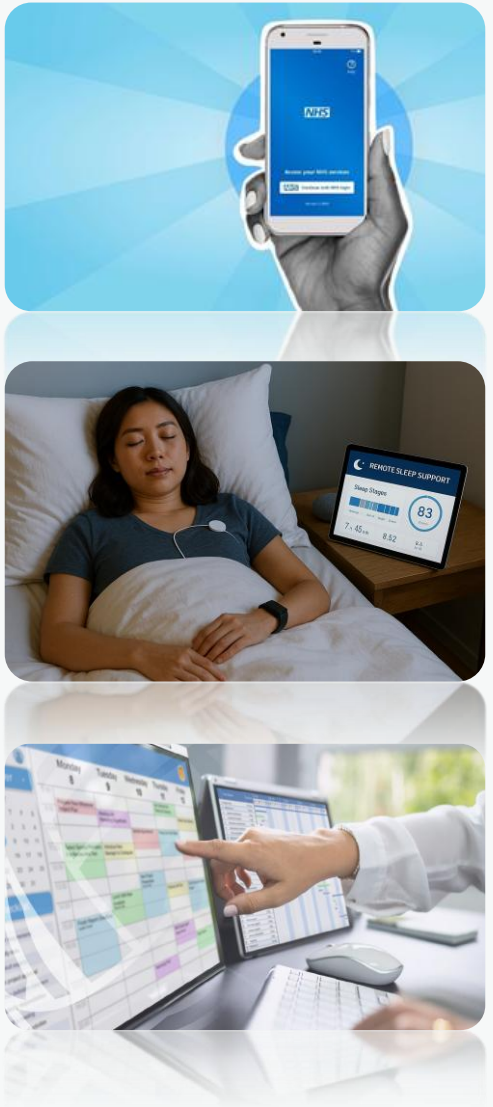
- Core cardiac and respiratory diagnostics such as ECG, Ambulatory ECG, Spirometry and basic sleep studies and basic exercise testing could be delivered at neighbourhood level, improving accessibility and reducing pressure on acute services.
- Measurement of sensory health, hearing, balance and eyesight, particularly in those with mild to moderate frailty could also be delivered at neighbourhood level.
- Physiologists are highly qualified and experienced individuals who can deliver these services.

Digital service transformation across the NHS must include Physiological Science services

Patients will expect to book tests, receive results and advice through the NHS App. Physiologists will need to be able to share results digitally

- Digital integration will help reduce unnecessary testing and boost productivity by ensuring results, images and referral data are seamlessly shared with all providers who need access.

- Services should seek opportunities to meet demand in different and innovative ways, making full use of technology to enable remote monitoring, home based assessments, and digital screening tools.



AI Improving Analysis

Remote Monitoring

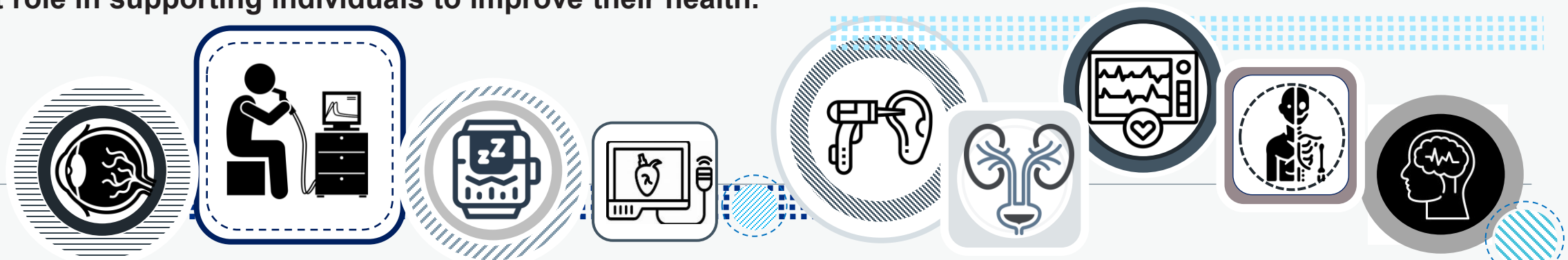
Self-Referral

Intelligent Scheduling

Physiological Science services have an important role in prevention and reducing health inequalities to help identify and manage conditions before they deteriorate

- Physiological Sciences provide many of the key tests required for the early detection and management of diseases which have been identified as making the most significant impact on differences in health outcome across the population e.g. lung cancer, asthma, COPD, epilepsy (as identified in the NHS Core 20 Plus 5 Strategy).
- Providing faster, high quality and accessible diagnostic testing and therapy ensures timely interventions, helping people receive the right treatment before their health deteriorates.
- National data highlights significant variation in access to key Physiological Science tests.
- To address health inequalities, equitable access to these diagnostics must be ensured for every individual, regardless of location or circumstances.

By assessing an individual's function and fitness, physiological science tests can play an important role in supporting individuals to improve their health.



Action is required at all levels to ensure services are fit for the future:

National

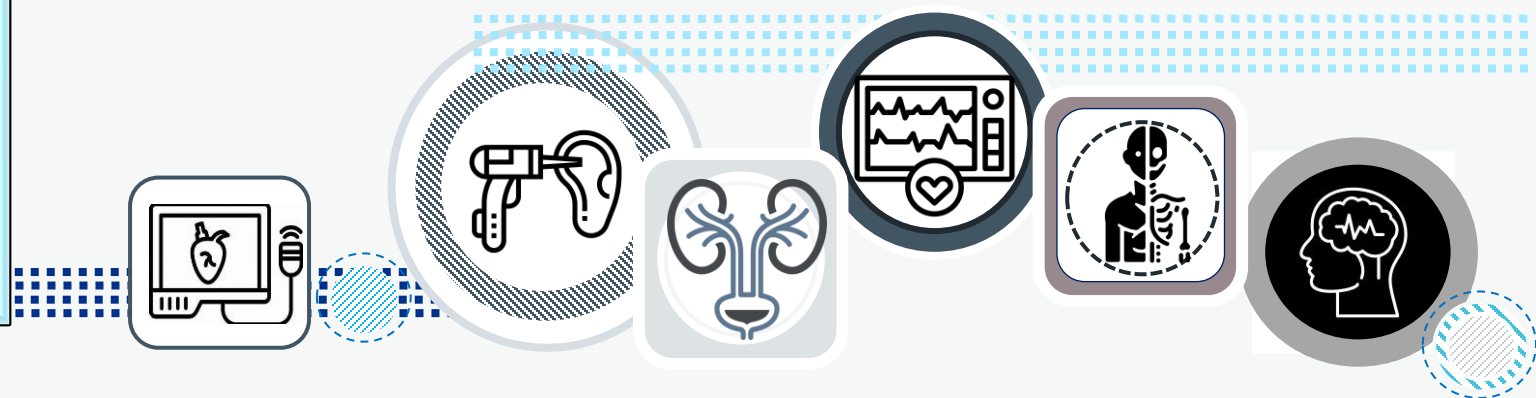
- National Physiological Data Collections
- Enable development of Networks
- Enable investment in digitalisation and capital improvement
- Support capability for quality improvement
- Enable workforce growth and education and training
- Promote Physiological Science as an essential part of NHS Diagnostics and a career choice
- Reform “DM01” to include a larger representation of PS diagnostics

Regions, Networks and Systems

- Promote Physiological Science services as important contributor to referral to treatment performance
- Lead development of effective Networks
- Target capital investment for upgrading equipment and facilities
- Plan approaches to training and education at a system or network level
- Ensure physiological science services embrace a systematic focus on quality through a QMS approach
- Bring digital transformation programmes to physiological science services

Providers and Service Teams

- Ensure services adopt quality management systems
- Improve access into services and focus on achieving a capacity and demand balance.
- Work to evidence-based guidelines for clinical test indications and triage
- Improve coding and data management at service level
- Develop the PS workforce, ensuring appropriate skill mix and ensure staff are registered with the relevant body
- Upgrade aged equipment and facilities for performing physiological science tests
- Develop community and neighbourhood services



National Physiological Science Transformation Programme: Core Team

Nathan Hall
Deputy Director, Diagnostics (Physiological Science)
NHS England

Amy Taylor-Gonzalez
Implementation Lead,
National Physiological Science Transformation Programme, NHS England

Karen Richardson
Project Manager
National Physiological Science Transformation Programme, NHS England

Karen Pearson
Senior Project Manager
National Physiological Science Transformation Programme, NHS England

Zoe Olivia Bradley
Programme Manager
National Physiological Science Transformation Programme, NHS England

Dr Martin Allen
National Speciality Advisor,
National Physiological Science Transformation Programme, NHS England

Prof Keith Pearce
National Speciality Advisor
National Physiological Science Transformation Programme, NHS England
Expertise in Cardiac Science

Teresa Robinson
National Speciality Advisor
National Physiological Science Transformation Programme, NHS England
Expertise in Vascular Science. NSA role includes interest in GI physiology & Urodynamics

E-mail: england.psprogramme@nhs.net
Physiological Science NHS Futures page: https://future.nhs.uk/connect.ti/PhysiologicalMeasurements